

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A housing structure of vehicle-mounted electronic equipment comprising:

a connector housing into which a large number of contact pins are press-fitted and a counter-connector is inserted;

~~a cover that is integrally formed with said connector housing of a fire retardant resin and is provided with a canopy part and an annular circumferential wall part in which a canopy part and an annular circumferential wall part are integrally formed by a fire retardant resin filled with glass filler;~~

an electronic substrate temporarily fixed onto an inner wall of said annular circumferential wall part, and to which said contact pins are connected; and

a highly conductive heat-transfer base that is disposed in contact with said electronic substrate so that a heat generated by the heating part mounted on said electronic substrate is transferred and dissipated, and which is provided with mounting lugs for mounting the base on a vehicle body;

wherein said annular circumferential wall part is provided with an annular groove in which a sealant is inserted and plural screw holes located at the outside of said annular groove;

said base is provided with an annular protrusion snapped into said annular groove and has plural through holes located at the outside of said annular protrusion; and by inserting fixing screws into said screw holes through said through holes, said electronic substrate is held between said annular circumferential wall part and said base.

2. (Original) The housing structure of vehicle-mounted electronic equipment according to claim 1, wherein said electronic substrate is temporarily fixed by press-fitting a protrusion part provided on the inner wall of said annular circumferential wall part into a mounting hole provided on said electronic substrate.

3. (Currently Amended) The housing structure of vehicle-mounted electronic equipment according to claim 1,

wherein said cover integrally formed with said connector housing is composed of a fire retardant resin, comprising in which polybutyleneterephthalate resin which is used as a base material and which is filled with 15 to 40 % by weight of glass filler;

wherein said base is manufactured by aluminum die-casting;
wherein and an adhesive sealant made of a room-temperature-setting liquid silicone rubber is used as said sealant.

4. (Currently Amended) The housing structure of vehicle-mounted electronic equipment according to claim 1,

wherein said canopy part is provided with a column having a central screw hole with one end blocked at a central position thereof; said base is provided with a pedestal, on which the electronic substrate is placed, and a central through hole passing through said pedestal substantially at the central position thereof; said cover, said electronic substrate, and said base are integrally formed and reinforced by a central fixing screw inserted into said central screw hole through said central through hole; said electronic substrate is sandwiched between an end part of said pedestal and an end part of said column; and a waterproof sealant is applied to a head of said central fixing screw.

5. (Original) The housing structure of vehicle-mounted electronic equipment according to claim 1, further comprising:

a copper-foil area that is electrically connected to the heating part mounted on said electronic substrate and disposed on the underside of said electronic substrate; a heat-transfer soft insulating layer that covers said copper-foil area; and a heat-transfer protrusion provided on said base.

6. (Original) The housing structure of vehicle-mounted electronic equipment according to claim 1, further comprising:

a copper-foil area that is electrically connected to the heating part mounted on said electronic substrate and disposed on the underside of said electronic substrate; a heat-transfer

soft insulating layer that covers said copper-foil area; and a heat-transfer protrusion provided on said base;

wherein said soft insulating layer is composed of a room-temperature-setting liquid silicone rubber filled with a heat-transfer filler.

7. (Original) The housing structure of vehicle-mounted electronic equipment according to claim 1, further comprising:

a copper-foil area that is electrically connected to the heating part mounted on said electronic substrate and disposed on the underside of said electronic substrate; a heat-transfer soft insulating layer that covers said copper-foil area; and a heat-transfer protrusion provided on said base;

wherein said soft insulating layer is composed of a heat-transfer elastic insulating sheet.

8. (new): A housing structure comprising:

a connector housing into which a plurality of contact pins are press fitted;
a cover integrally formed with said connector housing and which has a canopy part and an annular circumferential wall part;

an electronic substrate connected to said contact pins and fixed onto an inner wall of said annular circumferential wall part;

a highly heat conductive base disposed in contact with said electronic substrate for dissipating heat from a heating part on said electronic substrate and provided with mounting lugs for mounting the base;

wherein said annular circumferential wall part has an annular groove and a plurality of screw holes located outside of said annular groove;

wherein said base has an annular protrusion snapped into said annular groove for retaining a sealant, and has a plurality of through holes located outside said annular protrusion;

wherein by inserting fixing screws into said screw holes through said through holes said electronic substrate is held between said annular circumferential wall part and said base.

9. (new): The housing structure according to claim 8, wherein said electronic substrate is temporarily fixed by press-fitting a protrusion part provided on the inner wall of said annular circumferential wall part into a mounting hole provided on said electronic substrate.

10. (new): The housing structure according to claim 8, wherein said cover is composed of a fire retardant resin; said base is manufactured by aluminum diecasting, and said sealant is an adhesive sealant made of room temperature setting liquid silicone rubber.

11. (new): The housing structure according to claim 8, further comprising:

a copper foil area that is electrically connected to said heating part and disposed on said electrical substrate on a side opposite said heating part;
a heat transfer protrusion on said base; and
a soft insulating layer disposed between said copper foil area and said heat transfer protrusion.

12. (new): The housing structure according to claim 11, wherein said soft insulating layer is a room temperature setting liquid silicone rubber with a heat transfer filler or a heat transfer elastic insulating sheet.